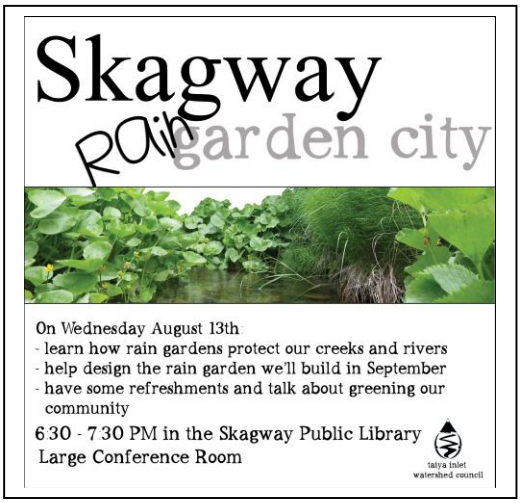
FY 15 Alaska Clean Water Act Grant Accomplishments

Southeast Region

Pullen Creek Rain Garden and Outreach
Southeast Alaska Watershed Coalition, $18,400

This project addresses an ACWA Restoration priority. Stormwater is a source of pollution to Pullen Creek. Working with the Taiya Inlet Watershed Council, the coalition will construct a rain garden at the Senior Center in Skagway. The garden will be designed to capture stormwater that normally flows along 11th Avenue, enabling the water to be treated before flowing to Pullen Creek. Diverting untreated stormwater will help to reduce the pollution reaching Pullen Creek. The garden will also serve to educate Skagway residents about the benefits of low impact development.



Outcome: Stormwater runoff along approximately 4,860 ft of 11th Avenue was diverted away from Pullen Creek into a rain garden. The rain garden functions as a stormwater treatment feature and is an attractive addition to the future senior center landscaping. In addition, a rain garden pamphlet was produced and a community workshop conducted. Project proponents hope to inspire future rain gardens throughout the Skagway community to treat stormwater. This particular project will aid in the long term recovery of Pullen Creek.

Snow Removal Plan in the Haines Borough
Southeast Alaska Watershed Coalition, $17,000

This project addresses an ACWA Stewardship priority. This project will develop a snow removal plan to be presented to the Haines Assembly and the Department of Transportation for adoption. Haines receives an average of 97 inches of snow per year and can receive as much as 120 inches of snow in a single month. Piles of snow, which are often laced with sand, grease, antifreeze, oil and heavy metals have, in the past, been pushed into anadromous stream and tide pools. This project will provide

Haines with a snow removal plan identifying alternative locations that will better protect sensitive fish and aquatic habitats.

Outcome: A snow removal plan for the Haines Borough, including a map showing land ownership and proximity to waterbodies, was produced. The plan identifies the current snow removal practices, potential hazards to water quality and/or fish habitat, and proposes alternative Best Management Practices (BMPs) to reduce negative impacts of snow removal/storage. The plan has been submitted to Haines Borough for review and implementation. The project increased awareness of landowner responsibilities and stewardship of public and private lands adjacent to anadromous streams and coastal waterways and also called attention to the effects of road salt on vegetation, and marine and freshwater organisms.

Wrangell Beach Monitoring
Southeast Alaska Watershed Coalition, $24,589

This project addresses an ACWA Stewardship priority. This project will initiate recreational beach monitoring at City Park and Petroglyph Beach in Wrangell, Alaska. These beaches were identified by DEC as a high priority, because they are commonly used for swimming and wading recreation activities. DEC will work with local agencies to notify the public if monitoring results confirm bacterial levels that exceed public health criteria. The project will also increase public awareness of potential sources of bacterial contamination and associated health risks.

Outcome: Beach monitoring was conducted at City Park and Petroglyph Beach in Wrangell, Alaska. The initial sampling showed beaches are safe for recreation and a second year of monitoring is currently being done to confirm the initial findings. Press releases and newsletters were also done to increase public awareness of potential sources and health risks associated with bacterial contamination.

South-Central

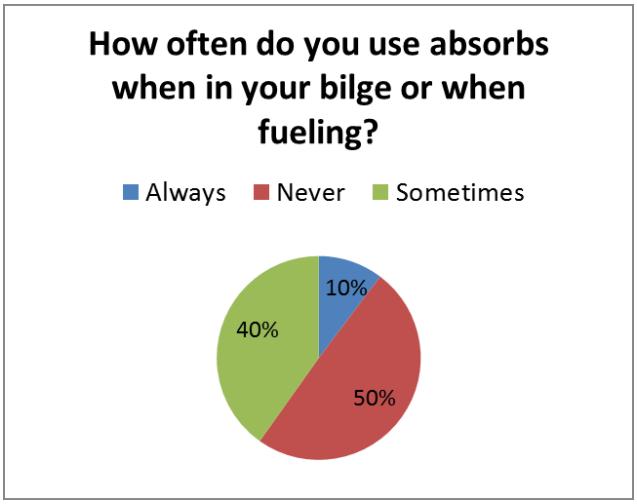
Big Lake Management Plan Revision
Agnew Beck Consulting, LLC, $28,616

This project addresses an ACWA Restoration priority. In 2006, Big Lake was identified as impaired (polluted) from petroleum hydrocarbons. This project is focused on amending the 1998 Lake Management Plan. With support from the community council, the project will start by educating the public on how revising the 1998 Lake Management Plan could help to reduce the petroleum hydrocarbons in the lake. Once authorization to amend the plan is received from the community, the grant recipients will produce an amended plan, and subsequently work with the community and Matanuska-Susitna Borough officials to seek adoption of the amended plan. Contact: Shelly Wade, (907) 242-5326.

Outcome: The first task was to work extensively within the Big Lake community to discuss and gauge support for re-opening the 1998 Big Lake Management Plan. A revised plan could add more water quality protections. After several informal and formal meetings within the Big Lake community,

there was not local support at this time to move forward. The effort needed to revise the Big Lake Management Plan is substantial; revising the plan may be supported by the community in the future. Per the grant agreement, if support was not evident in this first task, DEC would end the grant. The grant ended after the 2nd quarter and funds were returned to DEC.

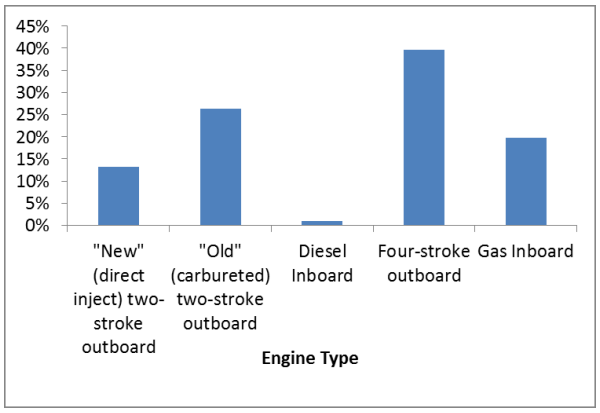
Clean Boating in the Susitna Valley
Cook Inletkeeper, $55,000



This project addresses both ACWA Restoration and Protection priorities and expands on an ongoing program. Since 2010, DEC, in conjunction with Cook Inletkeeper and local partners has been educating boat owners at Big Lake and the Little Susitna River on the importance of clean boating practices. This project continues the education activities at these sites and adds the Deshka River boat landing. All locations are popular for sport fishing and other recreational opportunities in the Matanuska-Susitna Borough and are important economically and socially. The waters are impaired (Big Lake) or at risk of impacts to water quality from petroleum hydrocarbons. Excess turbidity is also a concern. The source of the pollution is gasoline and boat wakes from powered watercraft. Older 2-stroke carbureted motors are a significant contributor of petroleum hydrocarbons. The grant will also develop a framework that could be used for a 2-stroke motor buy-back program. Contact: Rachel Lord, (907) 235-4068 ext. 29.

Outcome: This year saw an increase in boater awareness and knowledge of the pollution concerns at Big Lake. The majority of boaters surveyed at Big

Lake (88%), Deshka Landing (91%), and the Little Susitna (100%) knew that Big Lake was listed as polluted. The top pollution concern for boaters at Deshka Landing was old carbureted 2-stroke motors. Despite their awareness of pollution, the majority (50%) of boaters still do not use oil absorbents. In total, 143 clean boating surveys were taken and 201 clean boating kits were handed out at boat launches (161) and at sportsman shows (40). Project also developed a regional 2-stroke engine buy-back program framework report. 25% - 31% of survey responders said they would replace their older 2-stroke engine if there was a cost-share/buyback program.



Cottonwood Creek Septic Smart: Homeowner Outreach

Mat-Su Resource Conservation Development Council, $23,450

This project addresses an ACWA Restoration priority and expands on-going efforts. Cottonwood Creek is polluted from fecal coliform bacteria. This project will work with homeowners, local engineers, and septic system pumping services to expand pumping co-operatives that share costs where one street with several home septic systems can be inspected and serviced at the same time at reduced costs. To date, several local septic pumping companies are willing to offer a discounted rate for the co-op. Outreach to the local neighborhoods adjacent to Cottonwood Creek has been conducted and at least 1 co-op is anticipated to be formed shortly. The project now seeks to expand the number of participants in co-ops. The project will also include an education component to raise awareness of how septic systems can impact water quality in the creek and ways homeowners can reduce this risk. Contact: Marty Metiva, (907) 373-1016

Outcome: Nine pumping co-ops, each serving multiple households, were formed increasing the likelihood of septic systems being maintained. Thousands of area residents were exposed to Septic Smart information.

Conversations were conducted with Cottonwood Creek residents by going door-to-door in the evenings. Flyers were left when homeowners were absent. Many people did not know they had a septic system, what it was, how it worked or what maintenance was required. They also did not realize Cottonwood Creek was nearby and polluted with bacteria.

Matanuska River Assessment

Palmer Soil and Water Conservation District, $16,800

This project addresses an ACWA Restoration priority. A portion of the Matanuska River is impaired because of an unpermitted disposal area. Items in the disposal area include automobiles, appliances, abandoned drums, railroad cars, and other recently disposed household items. The grant recipients will work with DEC and the landowner to develop a debris removal and disposal alternative plan including needed permits. The plan will include a cost estimate of options. Contact: Dr. Jeff Smeenk, (907) 745-1441.

Outcome: The project developed a remedial alternatives plan for the debris disposal site. The plan covers various removal options that vary in degree of difficulty, cost and amount of debris addressed. The erosive nature of the Matanuska River, the need for bank stabilization, and the current configuration of the debris pile means any debris removal poses environmental and social risks. Selection of appropriate remedial options will need to be conducted by affected parties, including the land owner (Alaska Railroad Corporation).

Willow Water Quality Habitat Assessment
Aquatic Restoration and Research Institute, $47,000

This project addresses an ACWA Protection priority to evaluate water quality and aquatic habitat of Willow Creek, an important salmon and rainbow trout stream in the Matanuska Susitna Borough. Riparian development in combination with recent flooding may be increasing bank erosion. Increased development in the watershed may also be impacting water quality. This project will evaluate Willow Creek for physical characteristics, physical habitat, biotic communities, and riparian development. A final report will detail the current ecological condition of Willow Creek. Contact: Jeffrey C. Davis, (907) 315-4631.

Outcome: All sampling occurred as planned. The study results indicate that water quality and habitat in Willow Creek are generally in good condition, with some areas that may warrant further monitoring. Fecal coliform bacteria exceeded the drinking water criteria at two sites. Biological sampling indicate that Willow Creek has a healthy population of macroinvertebrates with ratings ranging from “good” to “excellent”. Riparian modifications were present at all sampling sites mainly due to residences, ATV trails, and recreational fishing use.

Kenai and Kasilof River Bacteria Monitoring
Kenai Watershed Forum, $96,616

This project addresses an ACWA Stewardship priority and continues previous work. Elevated levels of enterococci and fecal coliform bacteria have been measured in samples collected at the mouth of the Kenai River. Using past data to focus the 2014 sampling efforts, this project continues monitoring on the Kenai River (at the mouth of the Kenai River, North Beach and South Beach) and at an upriver location near the Warren Ames Bridge (River Mile 5). The project will also monitor at the mouth of the Kasilof River (both north and south beaches) and at one location near the Sterling Highway Bridge. If bacteria levels of concern are found, microbial source tracking will be used to determine the source. Contact: Rebecca Zulueta, (907) 260-5449 x1210.

> **Outcome**: Water quality monitoring of the Kenai River and Kasilof River beaches was conducted during the popular personal use fisheries during the month of July. Elevated levels of bacteria were found. Public service announcements aired that educated beach users to discard their fish waste back into the river to reduce the amount of fish waste left on the beaches. Fish waste left on the beaches attracts birds, mostly gulls that have been linked to elevated levels of bacteria found in the in the water. The project also produced a quality assurance project plan and monitoring report.

Kenai River Watershed Baseline Assessment
Kenai Watershed Forum, $30,000

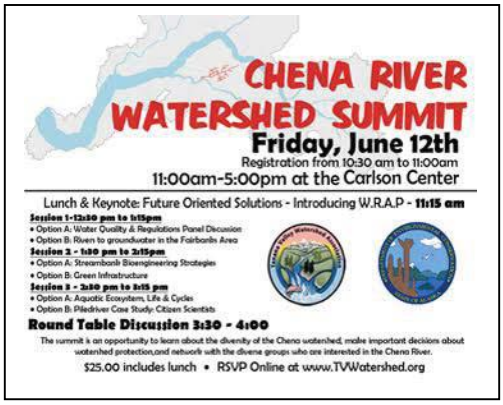
This project addresses an ACWA Protection priority. The project will conduct a comprehensive evaluation of the Kenai River baseline data collected from April 2007 to July 2014. Since 2000, the Kenai Watershed Forum has led a broad partnership among 14 organizations to conduct twice-annual watershed-wide monitoring. Monitoring has evaluated 22 sites for over 18 parameters including metals, petroleum hydrocarbons, turbidity, water temperature, and pH. The results are evaluated annually, but a comprehensive evaluation of trends has not been completed since 2007. This project will provide a comprehensive report including trend analysis of all data collected to date. Contact: Rebecca Zulueta, (907) 260-5449 x1210.

Outcome: A comprehensive report on 14 years of water quality data collected twice a year in April, May and July at 21 locations within the Kenai River watershed was produced. The results showed that the Kenai River overall is healthy. The project also produced a signed Memorandum of Understanding between State and Federal agencies, the cities of Kenai and Soldotna, and NGO's in support of the project and to continue the monitoring effort in the future.

Interior

Chena River – Awareness Campaign
Tanana Valley Watershed Association, $12,000

This project addresses an ACWA Restoration priority. This project supports on-going efforts to raise local awareness about the Chena River. The Chena River is Alaska's second largest producer of juvenile Chinook salmon that migrate to the Yukon River. This project will organize a Chena River Summit highlighting the benefits of green infrastructure (GI) applications to improve water quality in the Chena River watershed. Contact: Jewelz Barker, (907) 374-8890.



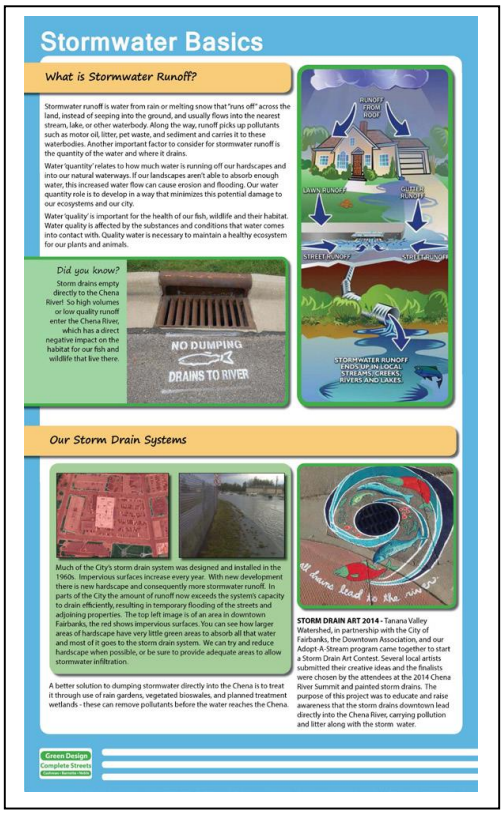
Outcome: The Chena River Summit was a daylong event in June where 62 attendees including various agency staff, public, community leaders, scientists and others gathered to learn about the Chena River watershed. There were numerous presentations and the event concluded with a round-table discussion. Leading up to the event, a multi-agency steering committee met several times and produced a Watershed Resource Action Plan for the Chena River watershed which was shared at the Summit event.

Fairbanks Complete Streets Best Management Practices
Tanana Valley Watershed Association, $11,392

This project addresses an ACWA Restoration priority for the Chena River. This project seeks to implement green infrastructure projects in conjunction with the Cushman and Barnette Complete Streets improvement projects. Green infrastructure applications are a logical fit to the Complete Streets movement, which has nationally seen high success rates in making streets safer and more user-friendly and at the same time reducing environmental impacts. Through public outreach, the project will work with local partners including the City of Fairbanks and private land owners to see how they can incorporate green infrastructure applications to complement the street redesign. Contact: Jewelz Barker, (907) 374-8890.

Outcome: The public outreach campaign reached numerous business owners with properties adjacent to the Complete Streets improvement projects via

public meetings, door-to-door visits and signage posted in Fairbanks City Hall. Eight business owners were initially interested in applying green infrastructure applications on their properties during the construction and five moved ahead with conceptual designs. The project provided technical support and produced design drawings and estimated budgets for the projects. Educational placards were also produced and hung on a wall in Fairbanks City Hall.



Statewide

Decreasing Sewage Discharges from Alaska Boaters
Cook Inlet Keeper, $43,223

This project addresses an ACWA Protection priority. This project will partner with the Alaska Clean Harbors project to educate boaters and harbormasters on the importance of proper sewage management to protect public health. It will also obtain feedback on the barriers to proper sewage pump-out use, and increase the number of harbor facilities in Alaska with working sewage pump-out units. With over 68,000 recreational motor boat users in Alaska, it is clear that many Alaskans enjoy boating around the coast, bays and other inlets. Human sewage from boats can contain harmful bacteria contaminating local waters and shellfish beds. A final report describing accomplishments and avenues for increasing pump out use will be provided. Contact: Rachel Lord, (907) 235-4068 ext. 29.

Outcome: Numerous outreach products useful in educating boaters and harbormasters were produced. These include a brochure, a Clean Vessel Act Funding fact sheet, educational videos, and a mobile pump-out demonstration kit. Partnering with the Alaska Clean Harbors program, the project used the outreach products to educate recreational boaters and harbormasters. Approximately 300 brochures were given to harbormasters around the state. In addition, at the Great Alaska Sportsman show, brochures were passed out and the mobile pump-out kit was available to attendees. The project also administered a survey during the show and at harbor visits. A final report was produced that includes survey results, an assessment of pumpout locations and functionality, and recommendations for future efforts.